Great Oaks IT Academy
Essential Skills Profile

This profile provides an outline of the skills required for successful completion of this career program. Additional information is located on the Great Oaks website at https://hs.greatoaks.com/future-students/essential-skills-for-high-school-programs and selecting the corresponding career program.

Recommended WorkKeys® Scores for IT Academy

Applied Mathematics – 5
Workplace Documents – 5
Graphic Literacy – 4

*Practice tests and more information at https://jobseeker.ohiomeansjobs.monster.com/Assessments/Home.aspx

Recommended Essential Skills to Successfully Complete the Program			
Rating Key:	**Low = Slightly Essential**	**Medium = Essential**	**High = Very Essential**

Key Vocational Factors		Rating
Visual Acuity	The ability to detect differences/details visually	High
Depth Perception	The ability to detect the physical distance/depth of objects in space and time	High
Oral Communication	The ability to express/explain ideas	High
Oral Expression	The ability to verbally explain and express self in an intelligible manner so others will understand	High
Written Communication	The ability to communicate in a written format and record information accurately	Medium
Physical Mobility/Strength	Extended standing, bending, stooping, and lifting/moving computers, sitting for extended times	Medium
Eye-hand Coordination	The ability to use tools	High
Auditory Acuity	The ability to detect differences in pitch and sound	Medium
Clerical Perception	Ability to perceive pertinent detail in verbal and tabular material	High

Worker Trait Skills	Rating
Ability to get along with others	Medium
Ability to work independently, without close supervision	High
Ability to work toward work including tasks of minimal interest	Medium
Ability to work accurately, recheck and correct work, to an industry standard	High
Ability to follow and retain:	
Multistep oral instructions	High
Written instructions/technical manuals - multistep	High
Simple to complex diagram instructions	High
Visual models or demonstrated instructions	High
Ability to use tools of trade (computer, screwdriver, soldering iron, etc.)	High

Ability to use numerical data (count, measure, compute, etc.) in applied setting	Medium
Ability to discriminate between objects of similar:	
Size	Medium
Shape	Medium
Color	Medium
Spatial relationship	Medium
Ability to organize work process/follow defined procedures	High
Ability to refer to charts for troubleshooting and specifications	High
Able to sequence events or follow a sequence as necessary	High
Active Listening: Give full attention to what other people are saying, taking time to understand the points being made, asking appropriate questions and not interrupting	High
Reading Comprehension: Understanding written sentences and paragraphs in work related documents	High
Speaking: Talking to others to convey information effectively	High
Critical Thinking: Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems	High

Applied Mathematics Skills * Recommended WorkKeys® Scores 5	
Understanding of numbers	Work with whole numbers and decimals
Mathematical calculations	Use one or two-step calculations to solve problems, decide what information, calculations or unit conversions to use to answer a problem
Solving problems with math	Solve problems that require mathematical operations with multiple units (e.g. 6 feet 4 inches or 4 hours 30 minutes), identify calculation mistakes
Workplace Documents Skills * Recommended WorkKeys® Scores 5e	
Complexity	Mostly clear and direct but with multiple details, may have complex sentences and/or conditional situations
Information and detail	May need to meet inferences, differentiate/interpret details
Vocabulary	Industry jargon, acronyms, use context to understand words
Document type	Informational, instructional, contracts and technical documents
Graphic Literacy Skills * Recommended WorkKeys® Scores 4	
Using charts/graphs	Locate information in charts or graphs
Interpreting information	Compare two or more pieces of information, identify trends/patterns, make inference and identify graphics that accurately represents data

Additional Recommended Abilities

Oral Comprehension	The ability to listen to and understand information and ideas presented through spoken words and sentences.

Oral Expression	The ability to communicate information and ideas in speaking so others will understand.
Written Comprehension	The ability to read and understand information and ideas presented in writing.

Knowledge Required in IT Academy Field

English Language	Knowledge of the structure and content of the English language including the meaning and spelling of words, rules of composition, and grammar.
Computers and Electronics	Knowledge of circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.
Customer and Personal Service	Knowledge of principles and processes for providing customer and personal services. This includes customer needs assessment, meeting quality standards for services, and evaluation of customer satisfaction.

IT Academy Work Activities

Networking activities, program activities, web design, activities	Microsoft Office activities
Oversee the daily performance of computer systems.	Answer user inquiries regarding computer software or hardware operation to resolve problems.
Enter commands and observe system functioning to verify correct operations and detect errors.	Set up equipment for employee use, performing or ensuring proper installation of cables, operating systems, or appropriate software.
Install and perform minor repairs to hardware, software, or peripheral equipment, following design or installation specifications.	Maintain records of daily data communication transactions, problems and remedial actions taken, or installation activities.
Read technical manuals, confer with users, or conduct computer diagnostics to investigate and resolve problems or to provide technical assistance and support.	Refer major hardware or software problems or defective products to vendors or technicians for service.
Develop training materials and procedures, or train users in the proper use of hardware or software.	Confer with staff, users, and management to establish requirements for new systems or modifications.
Prepare evaluations of software or hardware, and recommend improvements or upgrades.	Hire, supervise, and direct workers engaged in special project work, problem solving, monitoring, and installing data communication equipment and software.
Inspect equipment and read order sheets to prepare for delivery to users.	Read trade magazines and technical manuals, or attend conferences and seminars to maintain knowledge of hardware and software.

Modify and customize commercial programs for internal needs.	Conduct office automation feasibility studies, including workflow analysis, space design, or cost comparison analysis.
Back up network data.	Configure security settings or access permissions for groups or individuals.
Configure wide area network (WAN) or local area network (LAN) routers or related equipment.	Install network software, including security or firewall software.
Evaluate local area network (LAN) or wide area network (WAN) performance data to ensure sufficient availability or speed, to identify network problems, or for disaster recovery purposes.	Monitor industry websites or publications for information about patches, releases, viruses, or potential problem identification
Install and configure wireless networking equipment.	Create or revise user instructions, procedures, or manuals.
Database user interface and query software	Document network support activities.

Technology

Web platform development software	Operating system software
Enterprise resource planning ERP software	Development environment software

Certifications that Students can Earn

Credential	Ohio Graduation Points
CompTIA ITF+	6
Microsoft Office Specialist – Word 2019	3
Microsoft Office Specialist – Outlook 2019	3
Microsoft Office Specialist – PowerPoint 2019	3
Microsoft Office Specialist – Excel 2019	3
CPR/First Aid	1

Possible College Credits

College Credit Plus (CCP)	The CCP program provides Ohio high school students an opportunity to complete college courses and earn transcripted credit.
Career Technical Assurance Guides (CTAGs)	CTAGs award college credit for career-technical coursework to students who complete an approved course and earn a qualifying score on the end of course exam.
Articulated Credit	Some Great Oaks career-technical programs have agreements with colleges where student can earn credit toward a specific degree.

Please speak with your school counselor, Great Oaks counselor and/or career technical instructor to learn more about these potential opportunities.

Possible Career Pathways

Helpdesk Support Technician	Mobile Device Repair Technician
Networking Technician	Telecommunications
Program Developer	Information Security Specialist
Wiring and Cable Installer	Systems Engineer
Website Developer	Database Administrator